

REMARKS

Claims 1-9, 15-19 and 24-32 are rejected based on the proposed combination of Patel (United States Patent No. 5,884,179) in view of Boothroyd (United States Patent No. 4,581,491).

The obviousness rejection is traversed for the following reasons:

Claim 1 recites a telecommunications network having a mobile phone featuring an audio-modulated vibrotactile module that responds to a telecommunications signal containing information about incoming speech from a called/calling party, for providing an audio-modulated vibrotactile module force containing information about the incoming speech from the called/calling party to vibrate a user's fingers, facial skin, wrist, cheek or other suitable location. Independent claim 26 recites a mobile phone having similar features and independent claim 27 recites a method with corresponding features.

In the claimed invention, the incoming speech signal (over the telecommunication network) creates a vibrotactile input in the body. The system itself differs completely from the cited prior art documents and their combination. The claimed invention provides a lot of benefits for the users of mobile phones as the advantages of the invention on page 4 set forth, especially the users with impaired hearing do not necessarily need separate gadgets to carry with them. Audio-to-vibrotactile converter can actually be also in the network side when only the audio-

modulated vibrotactile module in the phone would contain only the vibrotactile actuator.

In contrast to the claimed invention, Patel discloses a mobile telecommunications network, and how to route the call or originate the call connection to the mobile phone. However, it is respectfully submitted that Patel does not suggest or even remotely hint at using audio-modulated vibrotactile stimulation in a mobile phone, especially the use of an audio-modulated vibrotactile force that contains information about an incoming speech from the called/calling party to vibrate a user's fingers, facial skin, wrist, cheek or other suitable location, which is the whole thrust of the claimed invention.

It is respectfully submitted that Boothroyd does not make up for the deficiency in teaching of Patel. Instead, Boothroyd discloses a wearable tactile sensory aid that provides information on voice pitch and intonation pattern. In view of this, Boothroyd in effect merely relates to an independent sensory aid to be worn by a deaf person, picking up speech information from the surroundings of the user and converting that into vibratory signal which is applied as tactile stimulus to the user.² It is respectfully submitted that, similar to Patel, Boothroyd does not suggest or even remotely hint at using such a wearable tactile sensory aid in a mobile phone, especially the

² It is respectfully submitted that, in the background of the invention, applicants described related art and made clear that: "Many different vibrotactile devices are known, including devices mounted on an ear mold, a ring, a bracelet or a watch. These devices convert speech into vibration modulation that stimulates or assists the user."

use of a wearable tactile sensory aid force that contains information about an incoming speech from a called/calling party to vibrate a user's fingers, facial skin, wrist, cheek or other suitable location, as claimed herein.

The remaining dependent claims 5, 7, 12 and 16-17 are rejected as being obvious over the proposed combination alone or in further combination with one or more other references. These claims depend directly or indirectly from claim 1, contain all the limitations thereof, and recite additional features in addition to that recited in claim 1. The other references are recited in relation to the other cited features in the remaining dependent claims. However, it is respectfully submitted that the proposed combination alone or in combination with the other reference(s) cannot result in the claimed invention, since the proposed combination alone or in combination with the other reference(s) does not teach or suggest the subject matter of claim 1.

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Reconsideration and early allowance of all the claims is
respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'William J. Barber', written in a cursive style.

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